

REMARKS

Claims 1-3 and 11-17 are pending in this case.

Each of independent claims 1, 13 and 15 recites, in part,

“a pressure plate disposed on said layer of material for dispersing a compressive force in a generally uniform manner across said layer of material”, and each of them recites,

“a cover having a top and first and second sides, said top shaped so as to generate said compressive force when said cover is engaged with said microplate, said first and second sides each including an inward projection for supporting a bottom edge of said microplate”,

“a cover having a top and first and second sides, said top including a central, longitudinally extending portion in contact with said pressure plate and lateral portions extending upwardly from said central portion at their inner edges , said sides extending downwardly from the outer edges of said planar portions and including projections that extend beneath bottom edges of said microplate”; or

“a cover having a top and first and second sides, said sides extending downwardly from the outer edges of said top and including projections that extend beneath the bottom edges of said microplate, said top bowing upwardly from a central portion thereof to said sides, whereby said top provides a resilient force that bears downwardly on said pressure plate and upwardly on the bottom edges of said microplate”.

At paragraph 2 of the Office Action, claims 1 and 11-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,056,427 to Sakabe et al. (“Sakabe”) in view of U.S. Publication No. 2002/0039545 to Hall et al. (“Hall”).

Sakabe was described as disclosing a microplate cover assembly including a layer of material, a pressure plate and a cover. (Office Action dated 07/08/03, Paper No. 17, at ¶2). The pressure plate was described as being “disposed on a layer of material for dispersing a compressive force in a generally uniform manner across the layer material”. The cover was described as being “shaped to generate a compressive force when the cover is engaged with the microplate”. Both the description of the pressure plate and that of the cover are inaccurate, however, as the portions of the patent cited as supporting those descriptions actually relate to what was known in the art prior to Sakabe and do not relate to Sakabe’s invention. Both descriptions are inaccurate, as well, as they ascribe attributes to the components of Sakabe’s invention which are not disclosed in the Sakabe patent.

Col. 1, line 9 of Sakabe expressly states that “Fig. 7 shows a *conventional* sealing structure of the reagent tray.” (Emphasis added). The discussion of the reagent tray set forth in cited excerpt, col. 1, lines 5-25, moreover, does not describe a pressure plate for “dispersing a compressive force in a generally uniform manner across the layer of material” as recited in Applicants’ claims. Instead, Sakabe describes a pressure plate which only applies “pressure to a sealing member to seal a cavity opening”. (Col. 1, lines 15-17). The excerpt, and the illustration shown at Fig. 7, also do not describe a cover for the reagent tray, but only describes that the pressure plate is positioned on the sealing member. (Id.).

Sakabe discloses a tray having cavities of varying heights for storing liquid, a sealing member which is disposed on the tray to cover the cavities, and a pressure plate which is “*disposed on* the sealing member for applying a pressure thereto...” (Col. 1, at lines 33-45 (emphasis added)). The object of that invention is to provide a pressure plate or a sealing member which

includes projections that are in registration with the center of the cavities on the reagent tray and wherein the sealing member deforms locally about each of the cavities to prevent evaporation from those cavities. (See, e.g., Col. 2, line 64 to col. 4, line 7; claim 1, lines 14-17; claim 2, lines 32-35).

In further describing that invention and related embodiments, Sakabe reiterates that the pressure plate is “disposed on”, col. 1, lines 53-54, 66-67, or “superposed on” that sealing member. (Col. 2, lines 43-45; col. 3, lines 6-9, 30-32). Sakabe uses language consistent with this concept in the claims, wherein it provides that the pressure plate is “disposed on” the sealing member. (Claim 1, line 18, claim 2, lines 32-33). In describing that the pressure plate is simply “disposed” or “superposed” on the sealing member, Sakabe makes it clear that the pressure plate is merely placed or positioned on the sealing member and does not disperse a compressive force on the sealing member. The pressure plate, consequently, also does not disperse that compressive force in a generally uniform manner across the layer material.

This distinction between the pressure plate of the present invention and that disclosed in Sakabe is demonstrated further by Sakabe’s discussion concerning the pressure provided by the pressure plate. More specifically, in each instance where the pressure plate is discussed, Sakabe states that an “effective” or “appropriate” pressure is provided to deform the sealing member locally to seal the varying levels of each cavity opening. (Col. 1, lines 41-44, 54-57; col. 2, lines 1-4, 50-52; col. 3, lines 13-15, 38-40; claim 1, at lines 19-22; and claim 2, at lines 35-38). However, Sakabe fails to define what constitutes an “effective” or “appropriate” pressure to deform the sealing member anywhere in the specification of the patent. In the absence of any specificity, it is arguable that the force or pressure described is that force or pressure due to gravity. Re-

gardless, it is clear that the pressure provided by Sakabe's pressure plate is neither a compressive pressure nor is that pressure dispersed in a generally uniform manner across the sealing member.

To the extent that the Examiner maintains that Sakabe's upper base is a pressure plate, then Sakabe does not disclose a cover for a pressure plate assembly, much less a cover capable of generating a compressive force. Instead, like the prior art cited in that patent, Sakabe discloses an upper base which serves as the pressure plate for that assembly. (Col. 1, lines 45-46, col. 3, lines 9, 12-13, 38). Consistent with Sakabe's use of the terms "disposed" or "superposed", the upper base merely rests upon the lower base and does not engage it. Figs. 2, 4 and 6 of Sakabe corroborate this fact wherein they show a gap between the edges of the upper and lower bases. Consequently, it is clear that the upper base of Sakabe is not configured to generate a compressive force. It is equally clear that the upper base does not and cannot engage with the lower base to generate a compressive force.

Hall was cited in the Office action, in relevant part, as providing a cover for a multi-well assembly having first and second sides each with an inward projection for holding the micro-plate. (Office action dated 07/08/03, Paper No. 17, at ¶2). Based upon this premise, it was asserted that it would have been obvious to one skilled in the art at the time of the invention to modify the cover of Sakabe to provide a cover with the side projections of Hall. As set forth above, Sakabe does not disclose a cover, much less a cover capable of generating a compressive force, nor does Sakabe not teach or suggest the use of a cover in the patented apparatus. Nothing in Hall suggests or teaches its combination with the upper base disclosed in Sakabe. Contrary to what is asserted in the Office action, moreover, one skilled in the art would not have been motivated to modify the upper base of Sakabe to provide a cover with the side projections of Hall as

it is mechanically not advised. The lower base of Sakabe is not configured along its side to securely receive the upper base of Sakabe or the cover of Hall. The lower base cannot securely receive the upper base or the cover of Hall either, because securing either structure along the bottom of the lower base would obstruct application of member (26) to holder (25), as shown, for example, in Fig. 2 and described at col. 2, lines 41-43 of Sakabe. Consequently, not only are these references void of any suggestion of their combination, the structure and function of the components of each reference actually teach away from their combination.

In addition, it is submitted that Hall does not disclose a pressure plate for dispersing a compressive force in a generally uniform manner across the layer of material. To the contrary, Hall discloses a cover for applying pressure to the layer of material or the gasket and sealing a multi-well plate without the need for a pressure plate. (Hall, at Section 0012; claim 1(d)). By suggesting that the cover itself is sufficient to provide the force necessary to seal gasket against the wells of the multi-well plate, Hall teaches away from use of a pressure plate in such an assembly.

At paragraphs 3 and 4 of the Office action, claims 2 and 3 are rejected under 35 U.S.C. §103(a), as “it would have been obvious to one skilled in the art Sakabe in view of Hall” and further in view of other specified references to provide the invention described in each claim. Claims 2 and 3 are dependent claims, each of which depend from claim 1.

As set forth above, Sakabe does not disclose the cover of claim 1, nor does Hall disclose the pressure plate of claim 1. It would not have been obvious to one skilled in the art to modify the upper base of Sakabe in view of Hall, as there is nothing in Hall to teach or suggest that modification to the upper base. In fact, it is submitted that one skilled in the art would have been

motivated not to modify the upper base of Sakabe in view of Hall as the modification would have rendered the apparatus of Sakabe unworkable for its intended purpose. A skilled artisan also would avoid modification of Sakabe in view of Hall, as Hall teaches a multi-well plate assembly which uses a cover for applying pressure to a gasket in lieu of a pressure plate.

With respect to paragraph 4, Applicants respectfully suggest further that the rejection of claim 3 under 35 U.S.C. §103(a) as being unpatentable over Sakabe in view of Hall and further in view of U.S. Patent No. 6,486,401 to Warhurst et al. would be inappropriate under §103(c), as the '401 patent and the subject matter of the claimed invention were commonly owned by, or subject to assignment to Tekcel, Inc., at the time that the invention was made.

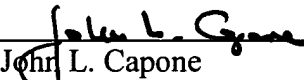
As Sakabe in view of Hall fails to disclose a microplate cover assembly including a pressure plate or cover as set forth in independent claims 1, 13 and 15, those claims are deemed to be patentable over those references and are in a condition for allowance. As dependent claims depending from allowable base claims, claims 2-3, 11-12, 14 and 16-17 are also deemed to be patentable over the prior art and in a condition for allowance.

Issuance of a new Notice of Allowance, thus, is earnestly solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account

No. 03-1237.

Respectfully submitted,



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